The Relationship between Integrated Payroll System and Recurrent Expenditure in Ministries, Departments and Agencies in Bayelsa State

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ABSTRACT

The main aim of this study is to investigate empirically the relationship between integrated payroll system and expenditure in Bayelsa State MDAs, data were collected through primary and secondary sources. The secondary was collected from annual reports of Bayelsa government, Nigeria and survey data were obtained from respondents using questionnaire shown to have a reliability coefficient of 0.90. Descriptive and ordinary least square regression statistical techniques is used in analyzing the data with the aid of special pack for social sciences (SPSS) version 21. The study findings revealed that there exist a positive and strong relationship between integrated payroll system and personnel cost and overhead cost. We conclude that the exist a significant relationship between Integrated payroll system and recurrent expenditure and recommend that all staff civil servant should be paid through bank and not by cash to prevent double hiring Payroll presentation for all state civil servants should be centralized in the state treasury Individual staff records showed centrally and safely kept with relevant accounting packages. The treasury single account policy should be dully complemented even in the local government system accounting staff should be trained on e-commerce and accounting system for intelligent and efficient use of accounting software in the ministries. All overhead cost incurred or to be incurred should pass through serious internal control mechanism in the state ministries.

KEYWORDS: integrated payroll, expenditure, MDAs, personnel

INTRODUCTION

Over the years Nigerian Government whether military or civilian had engaged in expenditure projects, aim at stimulating social-political and economic growth as well as development. The expenditure of the Nigerian Government is always categorized into recurrent and capital expenditure. Recurrent expenditure refers to payments made for all purposes except capital costs. It includes personnel costs, payments made on goods and services, social service, health services, provision of educational material as well as interest and subsidies. The recurrent expenditure in Nigeria annual budget over time shows a rise in the recurrent expenditure. Considering the items covered in the recurrent expenditure, which includes payment of salaries, welfare and other overhead and personnel cost, it shows that less than 3% of the population will spend more than 70% of the money that will be generated in Nigeria. There are serious implications of this on an average Nigeria and also to the generation unborn. According to statistics released by the Ministry of Finance, there are compelling needs to drastically reduce the recurrent expenditure. There is a growing need to streamline the ministries, department and agencies (MDA's) to minimize the high recurrent expenditure which is eating deep into our national solidarity, it is on this premise that the Integrated Payroll and Personnel Information System (IPPIS) was introduced in the Nigerian public sector.

Before the adoption of the integrated payroll system (IPS) using Integrated Payroll and Personnel Information System (IPPIS) in Nigeria, warrants for the monthly salaries of Ministries, Departments and Agencies (MDAs) were issued by the Budget Office

of the Federation (BOF) to the Accountant General of the Federation (AGF). The warrant which must be signed by the Minister of Finance serves as authority to the Accountant General of the Federation to disburse monies specified from Consolidated Revenue Fund (CRF) for the purpose of carrying on the services of government (OAGF, 2017). Upon the receipt of the warrant, the AGF shall issue mandate for cash-backing to the Central Bank of Nigeria (CBN) to credit the individual MDAS account. The MDAS were to prepare their staff payroll and effect the payments to their individual accounts and also responsible to account for the personnel cost given to them (Federal Treasury Circular, 2018).

During that period, payroll accounting was done manually without the aid of computers. Accountants invested a lot of time and energy in keeping track of all employees' data, files and information, calculating monthly salaries, hourly remunerations, bonuses, leaves, benefits, taxes and other deductions. All these were done by keeping numerous files filled with track records for each and every employee (Adrian, 2019). Although there are some MDAS that made use of computer for accounting records, but government still observed gross inadequacies in the payroll and personnel records in public service. Hence, the Federal Government of Nigeria carried out information of the Nigerian public service one of which is the Integrated Payroll and Personnel Information System (IPPIS) (Okonjo-Iweala 2016). Presently, the personnel costs of the MDAs that have been enrolled into IPPIS are no longer retired into their MDAs accounts, instead their personnel costs are now with the Central Bank of Nigeria (OAGE 2017). The Office of Accountant General of the Federation (OAGF) prepares payroll and generate mandate which will be sent to the CBN, then the staff salaries will now be credited directly from CBN into the employees account (OAGF 2017), The Office of the Accountant General of the Federation took over the responsibility of IPPIS since 2008 and for the fact that the personnel costs are now centralized, it is now easier for the OAGF to monitor funds (OAGF 2017).

The purpose of this reform is to curb fraud and reduce waste in the Nigerian public service Obaro (2016) asserted that except the public servant staff records are computerized, the fight against ghost workers will achieve limited result. Aganga (2018) also pointed out that the implementation of Integrated Payroll and Personnel Information System (IPPIS) was part of the efforts to reduce recurrent expenditure of the government in particular personnel cost, which represents more than 50 percent of recurrent expenditure. Integrated Payroll and Personnel

Information System (IPPIS), which is biometric, is a system where the data of every employee of government has to be captured and payment is made directly into their bank account (Obaro, 2016). This study therefore intends to determine the relationship between integrated payroll system and recurrent expenditure in Bayelsa State Government MDAS.

Aims and Objectives of the study
This study investigates the relationship between integrated payroll system and recurrent expenditure in Ministries, Departments and Agencies in Bayelsa State.

Examine the relationship between the use of BVN and government recurrent expenditure in terms of personnel cost.

Investigate how the application of BVN relate to overhead cost?

The following hypotheses stated in the null form may be raised for testing

H_{01}: There is no significant relationship between BVN and personnel cost.

H_{02}: There is no significant relationship between BVN and overhead cost
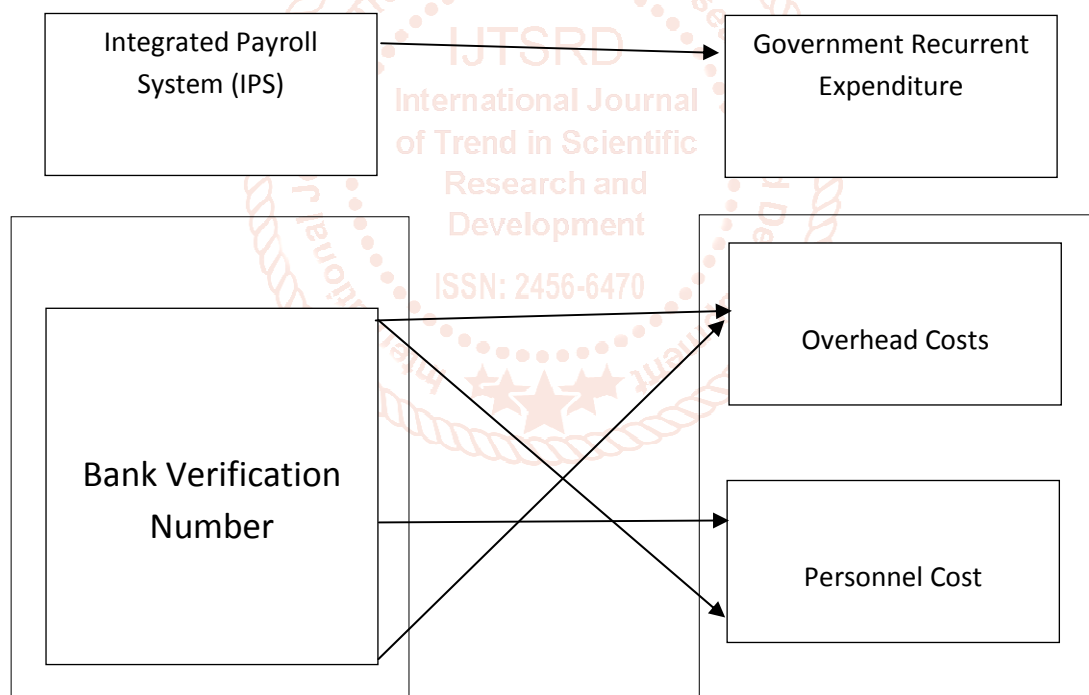
LITERATURE REVIEW
This part reviews the theoretical framework of integrated payroll system and government recurrent expenditure, it develops a conceptual framework, reviews existing empirical literature and expounds on the research gap on the relationship between integrated payroll system and government recurrent expenditure in Nigeria

Theoretical Framework
This study of integrated payroll system and government recurrent expenditure in Nigeria is anchored on **Equity theory**, which suggests that employee perceptions of what they contribute to the organization, what they get in return and how their return-contribution ratio compares to others inside and outside the organization, determine how fair they perceive their employment relationship to be, a Perceptions of inequity are expected to cause employees to take actions to restore equity. Unfortunately, some of such actions like quitting, lack of cooperation especially in form of fraud may not be helpful to the organization. Gehart (2019) added that individuals often compare their pay to that of people higher in the organization structure. If lower level employees feel inequitably treated, they may seek to reduce their effort to achieve equity. In Government's Organizations, Government spending and Taxation are key tools of Fiscal Policy. Government expenditure refers to the recurrent and capital expenditure incurred by the public sector for

the absorption and maintenance of its resources (Anyaduba 2018). Recurrent expenditure is the ongoing expenditure of an organization or expenses that occur repeatedly which involve the payment of salaries, travelling expenses and other miscellaneous expenses. It is paid from the Consolidated Revenue Fund (CRF) and no such expenditure may be incurred except on the authority of a warrant duly signed by the Minister of Finance (Aganga, 2018). This means that salaries are paid from recurrent expenditure of government and they are monitored using Fiscal Policy to avoid over spending. It is used by governments in an attempt to maintain economic growth, high employment and low inflation (Gehart, 2019). **Unified Theory of Acceptance and Use of Technology (UTAUT)** Unified theory of acceptance and use of technology (UTAUT) is a technology acceptance made formulated by Venkatesh and others in "User acceptance of information technology: Toward a unified view The UTAUT aims to explain user intentions to use a system and subsequent behaviour, in this research the UTAUT theory is used

to illustrate acceptance and use of technology in Government. The theory holds that four key constructs performance expectancy. effort expectancy, social influence by citizen and facilitating ideal conditions, i.e. the system tools. The first three being direct determinants of usage intention and behaviour, and the fourth direct determinant of use behaviour. The theory was developed through a review and consolidation of the constructs of eight models that earlier research had employed to explain information systems usage behaviour (theory of reasoned action, technology acceptance model, motivational model. theory of planned behaviour, a combined theory of planned behaviour/technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory). Subsequent validation by Venkatesh of UTAUT in a longitudinal study found it to account for 70% of the variance in behavioural intention and about 50% in actual use and thus test the pattern as regards implementation of IPPD. This study is however based on the Equity Theory

Conceptual Framework

Operational framework of integrated payroll system (IPS) and Government recurrent Expenditure Model

Government Recurrent Expenditure

Public expenditure can be broadly classified in terms of purpose as capital and recurrent expenditure Capital expenditure on capital goods and projects that are meant to increase the national output. Recurrent expenditure is a recurring spending on items that are consumed only for a limited period of time. In the case of the government recurrent expenditure includes wages, salaries and expenditure on consumables - stationeries, drugs for health service, bandages and amongst others. Simiyi (2019). Increasing recurrent

expenditure remains a challenge to many governments because the government is a major consumer of goods and services in the economy. Government recurrent expenditure has been seen as a key driver of productivity in the economy hence encouraging growth in Nigeria. Orunia (2020) finds results that shows that some components of public expenditure have positive and negative impacts on economic growth. He specifically finds out that health, public order, security and education are correlated to the wellbeing while defence expenditure

is negatively correlated. Controversially, Simiyi (2015) carried out a study to explain the relationship between the public expenditure and the payroll system in Nigeria using Vector Error Correction Model. In her study, she found out that there was no causal relationship between public expenditure, overhead cost in Nigeria According to the Keynesian theories, government expenditure should promote productivity but it has been an impediment just because of the way it is financed and allocated among sectors. Public borrowing and imposition of taxes as a means of financing results to crowding out of private investment and scaring away of potential investors respectively.

Personnel Costs

The current staff strength of the various ministries and agencies of government are over bloated, The government should be able to rationalise the staff and identify those relevant to the agency they serve. They should also engage in massive retraining of some of the trainable staff members to ensure efficiency and effectiveness A thorough auditing of the staff strength is needed. Also a careful identification of the ghost workers, those working with fake identity and fake qualifications should be flushed out of the system to provide space for competent and qualified individuals The civil service is the engine room for policy formation and programme to deserves a high productivity work force. The government can reduce the large wage bill by the adoption of out-sourcing and the use of private sector services and consultancy to tackle specialised jobs. This would also reduce the various obligations and labour demand A high productivity civil service will provide an enabling environment for most sectors of the economy to thrive. The issue of good governance, transparency and accountability will also thrive under such condition (Aji, 2019). Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the reference period. Personnel cost is the cost associated with personnel compensation and fringe benefits of employees (i.e. those classified as FTEs which includes both full-time and salaried/hourly employees) contributing to each respective process Personnel cost should include all of the following costs. Employee Compensation includes salaries and wages, bonuses, overtime and benefits, and fringe benefits include contributions made towards the employee's government retirement fund workers compensation, insurance plans, savings plans, pension funds retirement plans, and stock purchase plans. This should also include special allowances, such as relocation expenses and car allowances. Presently the Personnel Costs of the

MDAs that have been enrolled into IPPIS are no longer credited into their MDAs accounts; instead their personnel costs are now with the Central Bank of Nigeria (OAGF 2017) The Office of Accountant General of the Federation (OAGF 2017) prepares payroll and generate mandate which will be sent to the CBN, then the staff salaries will now be credited directly from CBN into the employees account (OAGI 2017) The Office of the Accountant General of the Federation took over the responsibility of IPPIS since 2008 and for the fact that the personnel costs are now centralized, it is now easier for the OAGF to monitor fund (OAGE 2017) The purpose of this reform is to curb fraud in the Nigerian public service Obaro (2016) asserted that except the public servant staff records are computerized, the fight against ghost workers will achieve limited result Aganga (2018) also pointed out that the implementation of Integrated Personnel and Payroll information System (IPPIS) was part of the efforts to reduce recurrent expenditure of the government in particular Personnel cost, which represents more than 50 per cent of recurrent expenditure Integrated Personnel and Payroll Information System (IPPIS) which is biometric, is a system where the data of every employee of government has to be captured and payment is made directly into their bank account (Obaro, 2016)

Overhead Costs

The academic literature provides two basic definitions of overhead direct versus indirect cost (overhead), and primary versus secondary activities (overhead) Although a fundamentally different definition does not need to be added, there is a need for clarification. The first definition, the distinction between direct and indirect costs, is not very clear, because the question of which costs are direct or indirect largely depends on an organization's structure and administrative system Some organizations measure the use of a particular support services by primary services, while others allocate the costs of those support services to the primary services in the first case, the costs of support services are direct costs, while in the latter case they are indirect costs. So, because organizations differ largely in what they consider to be indirect costs, this hinders a proper comparison. The second definition, the distinction between primary and secondary services or activities, is a generally suitable point of departure. A proper comparison is, however, only possible if this definition is specified in sufficient detail. Moreover, it should take into account the differences between sectors. It is from this perspective that we present our definition of overhead (Aganga, 2018) Overhead is defined as the whole of functions aimed at steering and supporting employees in the primary process. Therefore,

overhead functions indirectly contribute to the organization's functioning. In this respect we distinguish between generic overhead and specific overhead Generic overhead is common in every sector while the nature of sector specific overhead differs by sector. This distinction is important in order to adequately compare the overhead of organizations in different sectors.

Difficulty in the management of overhead
Overhead is an intangible phenomenon that is difficult to grasp for a number of reason First, it is difficult to establish which parts of an organization can be labelled as overhead. In addition, overhead differs by organization The personnel involved in preparing meals for staff at a municipality will, for example, be considered as overhead, whereas in a hospital the same tasks are regarded as an essential part of patient care (Dankwambo, 2017). There is no common definition: tasks considered to be overhead by one organization may not be regarded as such by others. In practice, each individual organization has its own description of overhead, which leads to confusion. Second, overhead is comprised of a large number of different tasks executed across the organization as a whole, partly centrally but generally also at multiple decentralized locations. This situation undermines the transparency of the concept. The definition of overhead can range from cleaning personnel, people who make sandwiches in a canteen, internal mail delivery and an IT helpdesk to personnel policies, the treasury function and management. The third problem is that overhead tasks change over time. For example, smartphones did not exist in the 1970s, instead, telexes were heavily used Hence, the supporting tasks also change over the years. A first step in managing overhead is defining the concept in order to determining its size within the individual organization.

Integrated Personnel and Payroll Information System
The integrated personnel and payroll information system (IPPIS) is an information communication technology (ICT) project initiated by the Federal Government of Nigeria (FGN) to improve the effectiveness and efficiency of payroll administration for its ministries department and agencies (MDAs) IPPIS is an oracle HCM solution that enables the end to end management of all staff personnel and payroll management system. This system performs all gross to net calculations including computation of tax deductions, union dues. In October, 2006. The federal government conceived the integrated payroll and personnel information system (IPPIS) to provide a reliable and comprehensive database for the public

service to facilitate manpower planning, eliminate record and payroll fraud, facilitate palsy storage, update and retrieve personnel records for administrative and pension processes and facilitate convenient staff recruitment staff remuneration payment with minimal waste leakage. The IPPIS report project went live in April, 2007 and was first piloted in six ministries: Education, Foreign Affairs, Finance (including the Budget Office of the Federation). Works, Information and Communication (as it was then known), and the National Planning Commission. In 2009, it was expanded to cover another 11 ministries, 11 department and agencies, including Aviation, Health, Agriculture, petroleum Resources, Transportation, Office of the Accountant General of the Federation, Office of the Head of Civil Service of the Federation, Office of the Secretary to the Government of the Federation and the Civil Service Commission. In the first month of implementation, IPPIS saved the government 4416 million. At the end of its first phase in 2010, the saving had risen to N12 billion. Building on the success of the pilot phase, the government embarked on a service-wide deployment of IPPIS in 2019. The government's intention is that, by 2020, all 582 government MDAS, made up the mainstream Civil Services and other Agencies in the Public Service drawing personnel cost from national budget have been enrolled onto the IPPIS platform. Government is also pursuing the full implementation of the human resource management component of IPPIS and the full connectivity of all human resource and finance offices to the system.

The Federal Government envisaged that the system will be implemented according to best practices as obtainable in other part of the world where Information and Communication Technology (ICT) is used to improve management reporting and information. At the initial stage of formulation and planning of the project, Bureau for Public Service Reform (BPSR) was the custodian of the IPPIS. The scope of the project is to cover the administration of the FGN's human resources beginning with establishment control and cadre management. It will cover all the activities that have to do with recruitment, promotion, transfers and career movements until appointment termination. The system is to track all the financial transactions that are related and linked to personnel emoluments. IPPIS is intended to be a service-wide system that will contain the records of all the employees of Federal Ministries, Departments and Agencies (MDAs) regardless of their locations. It was Instituted to provide a reliable and database for the public service. facilitate manpower planning, eliminate payroll fraud, facilitate

easy storage, update and retrieval personnel records for administrative and pension processes and facilitate staff remuneration payment with minimal wastage and leakages It was a reform introduced by the Federal Government to entrench transparency and accountability in the public service Human Resources HR) records and payroll administration. Integrated Personnel and Payroll information system (IPPIS) is a "computerized, biometric platform designed to improve the effectiveness and efficiency in the storage of personnel record and administration of monthly payroll in such a way that it will enhance confidence into emolument costs and budgeting, for data quality, the system would ensure the data gathered and migrated to the new system are accurate and valid. He further explained that when he assumed duty at the Federal Capital Territory (FCT) Abuja, the FCT was losing about NI billion yearly to ghost workers in their nominal payroll The ghost workers were detected after a staff audit was carried out which showed that, of the 26,017 workers in the FCT payroll. about 6000 were fictitious He confirmed that the Federal Government was very excited about thus development because it expects to make huge savings when the exercise is completed.

According to the World Bank (2017) The purpose of IPPIS was to procure and implement and integrate solution that would improve the effectiveness and efficiency in transactional services enhance the confidence in Payroll costs and budgeting and greatly improve management porting and information" The reform focused on a minimum set of critical reforms issue cross the board that would later provide a platform for subsequent reforms A critical component was the ability to manage services of the establishment and payroll within the context of public service productivity and constraints of government revenues, priorities, and budget. Aganga (2018) defined IPPIS as a biometric system where data of every employee of government has to be captured and payment made directly into employee's bank account The introduction of IPPIS was part of the Federal Government's effort to reduce the level of recurrent expenditure, in particular personnel cost which represent more than fifty (50%) percent of recurrent expenditure According to him, the nominal payroll of the Federal Government before the implementation of IPPIS had been 112,000 employees but the Government were able to remove a total of 43,000 "ghost workers" from the payroll of its MDAs within the last one year He said the implementation of IPPIS in the 36 MDAs had been divided into three phases noting that the first phase which covered seven (7) MDAs, saved the country over N12 billion. The savings, he explained, represented the difference

between releases to the MDAS based on their nominal payroll submissions before enrolment into the IPPIS and actual salaries paid through IPPIS after the exercise. The Organization for Economic Co-operation and Development (OECD 2019) confirmed that personnel costs are usually the largest single factor in government budgets Efficient budgeting and monitoring of personnel therefore has a significant impact on the capacity of a given government to control its expenditure, while at the same time fulfilling its mission (to the satisfaction of the public) with the limited budgetary resources available The crucial issue is on how to allocate the limited budget resources to the confirmed employees in order to ensure the post efficient and effective use of resources while at the same time meeting the growing demands of the citizens.

According to Dankwambo (2017), the concept of IPPIS is based on government's Public Sector Reform Initiatives component of Government Integrated Financial Management Information System (GIFMIS), and it is meant to focus mainly at ensuring effectiveness and efficiency in storage of personnel records and administration of monthly payroll He explained that workers in IPPTS now collect salaries on or before 20" of each month wherever they are located in the country on line, adding that the system has the capacity to ensure payment of salaries at any day of the month as well as generate payment in respect of all third party beneficiaries.

Orunia, (2020) opined that IPPIS was conceived by the Federal Government of Nigeria (FGN) to improve the effectiveness and efficiency in the storage of personnel records and administration of monthly payroll in such a way as to enhance confidence in staff emolument cons and budgeting. The two main components of this tool are (a) Personnel records, including graphical data, with payroll and finger prints, (b) Payroll Processing in addition to static bio data of civil servants, the personnel module of IPPIS support the basic tracking task such as specialty, promotion. deployment, transfers (postings), and in service trainings The payroll module supports such basic tasks as variation capture, payroll and audit, and the generation of pay slip at the MDAS, IPPIS represents a small component of a full-fledged e-government software platform based on its features on payroll processing and bio-data storage and retrieval and the Nigerian government has already reported some benefits from IPPIS. According to Okonjo-Iweala (2016) IPPIS was part of reform measures aimed at ensuring transparency and accountability in the management of government resources. It enhances efficient personnel cost

planning and budgeting as personnel cost will be based on actual verified embers and not estimate Aji (2019) described IPPIS as "part of Governments persisted and concerted effort towards reducing wastage and financial leakages in personnel cost management Otunla (2018) confirmed that IPPIS had led to the streamlining of personnel process and payroll

The objectives of IPPIS include the following: Facilitate Planning Having the civil service records in a centralized database will aid manpower planning as well as assist in providing information for decision making: Aid Budgeting. An accurate recurrent expenditure on emoluments could be planned and budgeted for on a yearly basis: Ascertain actual personnel emoluments and workforce of Federal Government: Monitor the monthly payment of staff emoluments: Ensure Database Integrity so that personnel information will be correct and intact This could be achieved since the database integrity constraints are built into ICT based system to avoid unauthorized users to manipulate data once entered in order to prevent alteration of sensitive employee data like date of birth and appointment: Eliminate Payroll fraud, such as ghost workers and multiple payments of emoluments to a single employee: Facilitate easy storage, updating and retrieval of personnel records for administrative and pension processes: Provide good working environment that is conducive and supportive to the operations of modern, proactive public service that is innovative and technological driven: The challenges of IPPIS include insufficiency of trained staff in some ministries, constant movement/posting of trained IPPIS officers, supply of inaccurate data by officers when filling he IPPIS forms. Some of the IPPIS officers wrongly input data such as date of birth and date of appointment in the database; lack of adequate sensitization and publicity, interconnectivity challenges with some of the MDAs This has posed a problem resulting in the late payment of salaries in the public service as confirmed by Orunia (2020) that because of the connectivity problem, government decided to slow down the implementation, particularly of IPPIS.

Automated Payroll

Payroll administration is the second module of IPPIS and major processes in the monthly payroll cycle are: variation capture at the MDAs, payroll run at the MDAs: payroll closure by MDAs payroll audit, payslip generation at MDAs: rollover to a new month; payroll warrant generation BOF: payroll mandate generation by OAGF, send Payroll warrants to CBN. The payroll cycle at the MDAS starts immediately salaries have been paid to the banks and ends after

notifications have been sent to Budget Office of the Federation (BOF). The process starts with making sure that all eligible civil servants, each with unique (IPPIS) identity number, are enrolled into the IPPIS data base compliant to the necessary regulations. The next step is the payroll processing or calculation. There is need for the Civil servants, the MDAs and Control agencies to be aware of the following: The salary of each employee which is contained in the payslip: The amount each of the MDAS is paying to all their employees, the taxes and other deductions that are being paid to the third parties These are contained in the payment schedules that are sent to banks nationwide that operates salary accounts for civil servants through Nigeria Inter-Bank Settlement system (NIBSS): A total of the amount that has been paid to civil servants scattered across the MDAs, and the amount that has been remitted to the third party agencies. This is important for budgeting, monitoring and control measures that will aid in fast decision making and management reporting. The Central bank of Nigeria (CBN) was encouraging the Ministries, Departments and Agencies ensure salaries, pensions, suppliers and taxes payments are done with e-payment channels in order to address the revenue leakages in government and private sector of the economy. The policy however, applies to organizations with more than fifty (50 employees The CBN in a circular said the process will reduce time and costs of transactions, minimize leakages in Government revenue receipts and provide reliable audit trails, thereby making the payments system comply with global standards. It will also promote transparency and accountability in governance. The e-payment policy is expected to ensure confidentiality of information of e-payment of salary, pension, taxes and suppliers (CBN, 2013). Based on the policy, payments are no longer transmitted to banks through unsecured channels such as paper based mandates, flash drives, compact discs and email attachments rather, the transactions must be routed through bank approved electronic platform which transmits the instruction to debit a payers account and credit a beneficiary's bank account. It shall include the ability of a payer to independently monitor and obtain electronic feedback on the status of any payment, at any time without depending on any third party, manual or semi-manual means. This exercise is in line with its powers as provided in the CBN Act, 2013, section 47, sub-section 24) The policy fully aligns with the core objectives of the National Payment Systems Vision NPSV) 2020, which is to ensure the availability of safe and effective mechanisms for conveniently making and receiving all types of payments from any location and at any

time rough multiple channels (CBN, 2013). From the foregoing suffice to say that IPPIS was a child of circumstance emanating from government's series of public financial management systems and their challenges. It was in a bid oversee and control government spending that led to creation of reform strategies one of which is IPPIS

Bank Verification Number

The role of BVN aimed at curtailing hazards associated with social security and credit risk cannot be underestimated (Obaro, 17) In recent times, biometric technologies have been used to analyse human characteristics as an enhanced form of authentication for real-time security processes In the face of increasing incidents of compromise on our conventional security systems (password and PIN), the need for greater security on access to sensitive or personal information in the Banking system becomes inevitable (Otunla, 2018) In the same vein, the extent to which violation in the credit policies and credit monitoring system weakens the financial intermediary system continue to attract empirical and theoretical debate how well Bank Verification system would thwart those issues of default and scam. In addressing existing challenges with identity management the Central Bank of Nigeria through the banker's committee in collaboration with all Nigerian banks in February 14, 2014 launched a centralized biometric identification system tagged "Bank Verification Number BVN. The BVN gives each Bank customer a unique identity across the Nigerian Banking industry that can be used for easy identification and verification at Point of Banking operations, Biometrics refers to identification of an individual based on physiological or behavioural attributes- fingerprint, voice, signature, facial features etc. BVN uses biometric technology to register customers in the financial system. It records these physical features which are unique to individuals - fingerprints and the face. The record would be used to identify the person afterwards. Once a person's biometrics have been recorded, and Bank issued the account would be accessed through BVN. The major objectives of the initiative are to protect bank customers, reduce fraud and strengthen the Nigerian banking system. Biometric enrolment is helpful to people who cannot read and write. Their finger prints and pictures would serve the same purpose as signatures (olabisi, 2020). Multiple account holders would be covered with a single registration in any of the banks where they have accounts BVN will help the banking system reduce situations where loan defaulters for instance, move from one bank to the other and the banks extend new credits to them, without knowing their history Banks would be able to

track transactions across all banks in Nigeria with more ease. As CBN implement's the BVN initiative, it has to ensure the security of the data from que bankers and also importantly from damage, as has been the experience with other sector that engaged in biometric enrolments, it should also create measures to punish banks that might exploit the information they have to blackmail customers with whom they have disagreements

Customers Bank Accounts are protected from unauthorized access with the use of BVN Through an enhanced biometric real-time security system, the danger of unauthorized access to customer's bank account is brought under check. The BVN is encompassing in detecting fraud of whatever type, whether through unauthorized access or through illegally authorized forms, and any other forms of fraud that's against the rule of law and social justice (otunla, 2018). It will be of great benefit to Nigerian economy as she undertakes a means to effective transaction delivery through the BVN irrespective of diversities in opinions, critics and shortcomings that may ensue in actualization of this project With BVN, Customers who borrow from one bank and default would not go to another bank to borrow without being tracked due to a unified credit performance system as Credit Bureau and lenders would be able to effect "Know Your Customer (KYC) policy by the CBN and fraudulent activities would be curtailed and banking activities would be monitored appropriately. BVN is a great initiative that would reduce illegal banking transactions and improve national financial intelligence gathering which will boost the economy. The interests of account holders should be accorded importance so that their increased confidence in the banking system would prove the financial standing of banks. Customers will use bank more when they know that their transactions are safe BVN offers vast opportunities to protect customers, banks and the financial system, However, researchers are examining the implication of Bank verification number BVN on the Nigerian economy and banking sector (Otunla, 2018), However, critics of the bank verification number scheme state that it is a duplication of efforts due to the introduction of the Nigerian uniform bank account number system (NUBAN) into the Nigerian banking system a few years ago NUBAN, which was introduced by the CBN in 2010, a 10-digit bank account numbering system which is easier to use than the traditional longer account numbering structures. It conforms to the requirements of the West African Money Institute, which promotes the financial integration of the Economic Community of West African countries. NIBBS officials have stressed that NUBAN identifies a customer within his or her own

bank. while the bank verification number scheme will identify a customer across the entire banking industry Thus, a customer will have the same bank verification number even if he or she has multiple accounts at different banks, this in the long run will bring about a reduction in government recurrent expenditure (Olabisi, 2016).

Empirical Review

Empirical studies have investigated the issues of integrated payroll system and government recurrent expenditure both internationally and locally, employing different statistical and econometric models to analyse the data collected, arriving at different conclusions in the process while there were agreements or disagreements in some of the outcomes.

Aji (2019) examined the relationship between IPPIS and government recurrent expenditure, he adopted multiple regression method (ANOVA) of analysis using the statistical package for social sciences (SPSS) to run the long run regression for the study period. They opined that, there exists a positive and significant relationship between IPPIS and government recurrent expenditure therefore concluded that IPPIS relates positively to government recurrent expenditure. Their studies recommended professional to create standard to be employed.

Adrian, (2019) investigating the effect of integrated payroll and personnel information system (IPPIS) on personnel cost and overhead of Britain using secondary data from 1995-2015 They engaged the use of Augmented Dickey-Fuller test for the unit root test and the Johansen's Cointegration test and error correction technique to run the regression analysis. The augmented Dickey-Fuller conducted on the variables showed that all the data were stationary at 1(1), and that the data series were significant between 1 and 5 percent except for overhead that were significant at 5% The work did not in any way, indicate if there was short nun equilibrium between the variables even when the error correction method was applied his study on IPPIS on personnel cost an international comparison in London, using least square regression analysis, their comparative study empirically revealed an important and insignificant effect. The authors conclude that IPPIS extent positively personnel cost he recommended that local business accounting regulation hinders implementation of international standards

Okonjo-Iweala, (2016) investigated the effects of IPPIS on overhead cost. Their study was carried out in United Kingdom health service for the 1985-1998, their study was based on a repeated cross-section data sourced from 14 years. The empirical design adopted

allowed them to compare their results with that of Brown (1995). Their empirical results indicated that IPPIS does not influence on overhead cost. Also no positive effect on decision making was found it accounting measures did not overhead cost, although their desire to take "hit to the bottom line" could impede disposal decisions, but no evidence was found on the personnel cost being recognized, as reflected through measures based on IPPIS on personnel cost and they recommended that government implement IPPIS should beware of the fact that any potential benefits may not be realized

Otunla. (2018). examined integrated payroll system and public expenditure in India. Their study aimed to convey the significant of both IPPIS and public expenditure with the help of its history and how it has developed in recent decades. Due to the aim of the study and its nature, content data from reports of related ministries and department from Indian public sector were descriptively analyzed. The result showed that there exist a positive effect of IPPIS on public expenditure and recommends that government should ensure proper accountability of resources in Indian

Otunla. (2019) evaluated ten years of IPPIS with the aim to ascertain whether public expenditure really exists in Australia in 2005. The study employed library material and descriptive analysis of content extracts from the selected public sectors in Australia The outcome of the study dictates that the majority of literature on the government public expenditure impacted positively IPPIS Ellwood & Newberry (2012) also argued that the fundamental purpose of IPPIS. protection of public money and that of business sector accounting practices were not devised for that purpose

Schwalbe, (2017). focused on the impact of IPPIS on government expenditure in New Zealand Time series data was collected and the data collected was analysed using univariate egression technique and results indicated that a significant and positive relationship between IPPIS on government expenditure. Their studies also concluded that there exists a significant positive relationship between IPPIS on government expenditure from the period of the study.

The Government of Rwanda since 2008 developed and implemented an Integrated Personnel and Payroll Information Systems (IPPIS). This is an in-house developed solution. The IPPIS replaced the legacy payroll system with added functionalities to assist in human resource management Detailed user manuals and high-level technical documentation were written and modelled using internationally accepted standards. In 2014 the Government got assistance

from the World Bank to improve the system functionality This requirement was necessary as a result of changes in the operational environment and also changes in the standard Governmental procedures related to human resource management (Rwanda's PFMRS 2013, 2014) and "Just as formation Technology Projects have poor track record of meeting projects goals, they also have pour record in meeting budget goals to demonstrate the validity and reliability of his instrument an his measurement scales. The main problem, with the implementation of the IPPIS being implementation of all modules which include Career Development and Succession Planning Job Evaluation, Grievance Management, Disciplinary Process Management. Employee Contract Management. Organization Structure and Talent Management which were not initially planned in the initial design. To address this problem and to ensure the identified requirements are integrated, the Government ort assistance of a consultant to work with MDAs, and developed a detailed requirement analysis which involved all stakeholders, documented all workflows and processes, identified and documented business interfaces with external systems, defined the expected input and output for business processes. In 1999, the Tanzania's Government through the Public Service Management started implementation of a HR and payroll system. In 2010, a business process review was conducted and presented to stakeholders that additional system development was necessary to improve the system functionality Upgrading of the Lawson system was carried out under many challenges including lack of donor support that had initially supported development of the system. Several views of the IPPS identified that the system do not meet the basic requirements for managing both HR and Payroll data. The reviews identified weak implementation strategy that made the system centralized at the Ministry of Public Service. Since then, this has changed and the system centralized in MDAs (PSRP reports 2006, 2007, and 2010) Adopting information systems could be impeded by laws and regulations but also poor system support. The integrated personnel and payroll information system and integrated financial management and information system have been able to enhance accountability and transparency in the management of government resources. More so, the Ministry of Finance observed in 2013 that e (IPPIS) has enhanced efficient personnel cost, planning and budgeting as personnel cost was based on actual verified aim and not estimates (Beyioku, 2019).

Uganda has been implementing an integrated payroll and personnel system (IPPS) since 2009 The current Oracle database, licenses and operating system have

never been updated since 2009 The system was reviewed in 2015. Results from the review indicate that the system data is complete: there are inaccuracies between actual payroll data and the IFMIS system: Human Resource Officers are not aware of actual payments made and whether they tally with the figures computed in the IPPS 'Payroll IPPS currently has no alternative Business Continuity & Disaster Recovery Capability: DRS Server has no functional storage as it was taken to replace storage at the production site which had crushed with no replacement as yet. DRS is not connected to the network therefore replication is not working and no back-ups stored in offsite location (Beyioku, 2019). In 2004, the Government of Malawi made a decision to develop a new Human Resource Management Information System (HRMIS). The short to medium term objectives of the new stem were to Control Civil Service establishment and hence control the wage bill, to maintain. Civil Service job records, maintain up-to-date personnel records, maintain training records and to maintain Industrial Labor relations records Implementation of this system has never covered all modules and integration with IFMIS has never been achieved. In June 2008 the Government decided to review implementation progress of the system. Terms of Reference covered comprehensive and objective assessment of the HRMIS to ensure that it met the original Government requirement specifications and best international accounting practices. The review was also to assess the compatibility of HRMIS with IFMIS By 2015 only the establishment. payroll and employee data modules of the system were fully functional (Beyioku, 2019)

METHOD OF DATA COLLECTION
This study adopts the cross-sectional field survey of quasi-experimental research design. The survey design was adopted because of the need to gather enough discriminative data across a wide range of the study subjects that further enhanced the generation of our findings. Data used in this study were mainly collected from primary and secondary sources. The statistical and mathematical tools to be used include percentages, frequencies, tabulation, and descriptive statistics while multiple regression analysis was used to test the hypotheses. The multiple regression model is guided by the following linear model:

$$GRE = f\,(IPPIS, BVN) \qquad - \quad - \quad - \qquad (1)$$

Mathematical form,

$$GRE = \alpha_0 + \beta_1\,IPPIS + \beta_2\,BVN \qquad - \quad - \quad - \qquad (2)$$

In statistics form,:

$$GRE = \alpha_0 + \beta_1\,IPPIS + \beta_2\,BVN + \mu \qquad - \quad - \quad - \qquad (3)$$

Where: GRE = Government Recurrent Expenditure. IPPIS = Integrated Payroll and Personnel Information System. BVN = Bank Verification Number. α=Regression Constant. β = Regression Coefficient μ = Error Term capturing other explanatory variables not explicitly included in the model. However, the model was tested using the diagnostic tests of heteroskedasitcity, serial correlation, normality and misspecification (Hosking, 2016). Econometric view (E-view) was applied in the analysis of data. E-views reports p values which can be used as an alternative approach in assessing the significance of regression coefficients. The p value shows what is the smallest level at which we would be able to accept the null hypotheses of a test. We used a 5% level of significance; hence we conclude that the coefficient is significantly different from zero at the 5% level if the p-values is less than or equal to 0.05. If it is greater than 0.05 then we cannot reject the null hypothesis that the coefficient is actually zero at our 5% significance level.

Data Presentation
Descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
IPS	23	112.00	136.00	124.0870	7.37263	-.056	.481	-.924	.935
BVN	23	112.00	136.00	120.4348	7.26027	.795	.481	-.105	.935
Personnel	23	12456000.00	648882579.00	137764377.4348	149035450.59436	2.127	.481	5.525	.935
Overhead	23	1423373.00	855430405.00	127642335.2174	198201196.58061	2.595	.481	7.893	.935
Valid N (Likewise)	23								

The above table is the result of the descriptive statistics generated form the analysis, it gives the values of the Integrated Payroll System (IPS). Bank Verification Number (BVN), and Personal Cost Incurred for the period (personnel) and overhead cost incurred for the period (overhead). The growth rate of the explanatory variables moves from 112 to 136 implying that both the IPS and the BVN have the same degree of effect on the perception of the respondents. There is a growing concern for the case of IPS and BVN among the respondents on expenditure reduction in the state. The same increase in growth rate is also evidence on the explained variables of personnel and overhead cost which grows from 12,456,000 to 648,882,579 for personnel cost and 14,233,373 to 855,430,405 for overhead cost. The implication is that the growth rate of the overhead cost increase faster than that of the personnel cost. This is an indication of the spending interest of the government and value of labour. Among the IPS and BVN. IPS has a greater mean value of 124 to BVN of 120 this means IPS has a greater effect cost reduction and control than BVN in the public sector. But in monetary terms personnel cost has a greater effect on the state expenditure as 137,764,377.4 to overhead cost of 127,642,335.2. A look at the standard deviation tells the most volatile explanatory and explained variables in the model IPS (7.37) is more volatile to change compared with BVN (7.2) while overhead cost is more volatile to change (1982) to personnel cost (1490). The result is normally distributed with a statistical skewness of more than 0.05 except for IPS with -0.056. And a kurtosis of 0.924 for IPS 0.105 of BVN 5.525 from personnel and 7.893 of overhead cost.

Test of Hypothesis.
Model summary a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics					Durbin Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	
1	.317[a]	100	.010	7.33419	100	1.116	2	20	142	1.928

Predictors (Constant), OVERHEAD, PERSONEL

Dependent Variable IPS

The regression summary of IPS to overhead and personnel cost has a R value of IPS to overhead and personnel cost has a R value of 0.317, R^2 value of 0.1 and adjusted R^2 of 0.010 shows that IPS has a 10% influence on an increase in the value of personnel cost and overhead cost in Bayelsa state. This result has a summation of 1.928 which is about 2, implies that there is no auto-correlation in the model and the result is acceptable for further application in their relationship.

ANOVA[a]

Model	Sum of Square	Df	Mean Square	F	Sig
Regression	120.020	2	60.010	1.116	.347[b]
Residual	1075.806	20	53.790		
Total	1195.826	22			

Dependent: Variable IPS

Predictors: (Constant) OVERHEAD, PERSONNEL

The ANOVAs means square for the regression is 60 which is greater than the residual mean square of 53.79 meaning that the variables in the model explain more 50% the behavior of the dependent variable than those excluded in the model

Hypothesis Two
Model summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change statistics					Durbin Watson
					R Square Change	F Change	Df1	Df2	Sig. F Change	
1	.183[a]	.034	-.063	7.48540	.034	.348	2	20	710	1.526

Predictors (Constant), OVERHEAD, PERSONEL

Dependent Variable: BVN

the regression summary of the BVN and the dependent variables of personnel and overhead cost. The R value is 0.183 the R^2 is 0.034 and the adjusted R^2 is -0.063 with a Durbin Watson of 1.526. The implication of all is that BVN has an influence on the volume of personnel and overhead cost, however, the effect is positive on one of the dependent variable and negative on the other. The netting result will give a negative effect of -0.063 at the adjusted R^2. The Durbin Watson of 1.526 is that the result is not absolutely free from auto-correlation in the disturbance element among and between the variable data.

ANOVA[a]

Model	Sum of Square	Df	Mean Square	F	Sig
Regression	39.027	2	19.513	.348	.710[b]
Residual	1120.625	20	56.031		
Total	1159.652	22			

Dependent: Variable IPS

Predictors: (Constant) OVERHEAD, PERSONNEL

the ANOVA mean square of 19.513 as regression and 56.031 as residual, showing that the explanatory variables (BVN) in the model is not the only and best explanatory variable to the explained variable personnel and overhead cost at a probability of 0.710 which is greater than 0.05.

Discussion and Conclussion
The overall analysis and test of hypothesis show that BVN has a negative relationship with personnel and overhead cost. an improvement in BVN usage and application will reduce both personnel and overhead cost. this is because it will prevent fraudulent cost element associated with payroll fraud, over invoicing in the state civil service, hence the null hypotheses that IPS has no significant effect on personnel and overhead cost is rejected and the alternative is accepted that BVN has a significant but negative effect on an increase in personnel and overhead cost in the Bayelsa State Civil Service. The implication is that BVN prevents double hiring with different organization by state employees. This is capable of reducing personnel cost in Bayelsa State. It is true that at the early age of the state civil service, civil servant were seriously double hiring between ministries, schools, boards and local governments the introduction of BVN had led to a careful detection of fraudulent act and had tremendously reduced the state personnel cost by 85% as shown. We conclude that there exist a significant relationship between Integrated payroll system and recurrent expenditure and recommend that all staff civil servant should be paid through bank and not by cash to prevent double hiring Payroll presentation for all state civil servants should be centralized in the state treasury Individual staff records showed centrally and safely kept with relevant accounting packages. The treasury single account policy should be dully complemented even in the local government system accounting staff should

he trained on e-commerce and accounting system for intelligent and efficient use of accounting software in the ministries. All overhead cost incurred or to be incurred should pass through serious internal control mechanism in the state ministries

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